

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A structured document search method for searching a structured document database, comprising:

accepting a search request in the form of a logical structured document;

analyzing the accepted search request ~~for generating a search graph to generate~~
a search graph including graph nodes based on the logical structure, wherein a variable
to be embodied is inserted between the graph nodes;

generating a search plan for a hierarchical structure possessed by a searched document, in which a search processing procedure for said structured document database is developed from said search graph, said generating the search plan including:

(a) applying a plan generation rule to any one of said graph nodes, using a plan generation rule base including a plurality of plan generation rules, the plurality of plan generation rules each including rule application conditions, costs and search processing procedures;

(b) executing a search processing procedure of the applied plan generation rule for materializing said variable; and

(c) repeating the applying and the executing thereby to complete said search plan;
~~and, by using index information concerning actual data in said structured document database; and~~

acquiring search results satisfying said search request by executing said search plan.

2. (Currently Amended) A structured document search method according to claim 1, ~~wherein, in the generation of said search plan, an optimal search plan is generated by traversing said search graph, and by using effectively said index information~~ further comprising utilizing index information relating to actual data in said structured document database for said materializing.

3. (Currently Amended) A structured document search method according to claim 2, ~~wherein in the method said search graph is traversed based on a strategy to evaluate preferentially the evaluatable partial graph in said search graph~~ further comprising selecting, from applicable plan generation rules, a plan generation rule a cost of which is less than said applicable plan generation rules.

4. (Previously presented) A structured document search method according to claim 1, wherein the search plan is executed after the completion of the generation of said search plan.

5. (Original) A structured document search method according to claim 1, wherein generation and execution of said search plan are performed alternately.

6. (Currently Amended) A structured document search method according to claim ~~[[1]]~~ 2, wherein said structured document database includes a hierarchical structure concerning element name and element value;

said search request includes search conditions concerning said element name and said element value; and

said index information includes at least one of data creation index including information for specifying said element value creation position in said structured document database and element name occurrence index including information for specifying said element name creation position in said structured document database.

7. (Original) A structured document search method according to claim 6, wherein said element name occurrence index includes information indicating said element name creation position by a parent element one rank higher in hierarchy of the partial structure where said element name is generated.

8. (Canceled)

9. (Canceled)

10. (Currently Amended) A structured document search method according to claim [[8]] 1, wherein said plan generation rule can be arbitrarily registered or deleted in said plan generation rule base.

11. (Original) A structured document search method according to claim 1, wherein said search graph is generated based on the syntax analysis results of the description of said search request, in the generation of said search graph.

12. -14. (Canceled)

15. (New) A structured document search apparatus for searching a structured document database, comprising:

means for accepting a search request in the form of a logical structured document;

means for analyzing the accepted search request to generate a search graph including graph nodes based on the logical structure, wherein a variable to be embodied is inserted between the graph nodes;

means for generating a search plan for a hierarchical structure possessed by a searched document, in which a search processing procedure for said structured document database is developed from said search graph, said means for generating the search plan including:

means for applying a plan generation rule to any one of said graph nodes, using a plan generation rule base including a plurality of plan generation rules, the plurality of plan generation rules each including rule application conditions, costs and search processing procedures;

means for executing a search processing procedure of the applied plan generation rule for materializing said variable to complete said search plan; and

means for acquiring search results satisfying said search request by executing said search plan.

16. (New) A computer program stored in a computer readable medium for searching a structured document database, the program comprising:

means for instructing a computer to accept a search request in the form of a logical structured document;

means for instructing the computer to analyze the accepted search request to generate a search graph including graph nodes based on the logical structure, wherein a variable to be embodied is inserted between the graph nodes;

means for instructing the computer to generate a search plan for a hierarchical structure possessed by a searched document, in which a search processing procedure for said structured document database is developed from said search graph, said

means for instructing the computer to generate the search plan including:

means for instructing a computer to apply a plan generation rule to any one of said graph nodes, using a plan generation rule base including a plurality of plan generation rules, the plurality of plan generation rules each including rule application conditions, costs and search processing procedures;

means for instructing a computer to execute a search processing procedure of the applied plan generation rule for materializing said variable to complete said search plan; and

means for acquiring search results satisfying said search request by executing said search plan.